



Sequence Listing

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<120> PROMOTION OR INHIBITION OF ANGIOGENESIS AND
CARDIOVASCULARIZATION BY TUMOR NECROSIS FACTOR
LIGAND/RECEPTOR HOMOLOGS

<130> P1765R1

<140> US 09/613,972

<141> 2000-07-11

<150> US 60/143,304

<151> 1999-07-12

<160> 22

<210> 1

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 1

cacgcacttc acctgggtcg ggattctcag gtcatgaacg gtcccagcca 50
cctccgggca gggcgggtga ggacggggac ggggcgtgtc caactggctg 100
tgggctcttg aaacccgagc atggcacagc acggggcgat gggcgcgttt 150
cgggccctgt gcggcctggc gctgctgtgc gcgctcagcc tgggtcagcg 200
ccccaccggg ggtcccgggt gcggccctgg gcgcctcctg cttgggacgg 250
gaacggacgc gcgctgctgc cgggttcaca cgacgcgctg ctgccgcgat 300
taccggggcg aggagtgtg ttccgagtgg gactgcatgt gtgtccagcc 350
tgaattccac tgcggagacc cttgctgcac gacctgccgg caccaccctt 400
gtcccccagg ccagggggta cagtcccagg ggaaattcag ttttggcttc 450
cagtgtatcg actgtgcctc ggggaccttc tccgggggccc acgaaggcca 500
ctgcaaacct tggacagact gcacccagtt cgggtttctc actgtgttcc 550
ctgggaacaa gaccacaaac gctgtgtgcg tcccagggtc cccgccggca 600
gagccgcttg ggtggctgac cgtcgtcctc ctggccgtgg ccgcctgcgt 650
cctcctcctg acctcggccc agcttggact gcacatctgg cagctgagga 700
gtcagtgcac gtggccccga,gagaccagc tgctgctgga ggtgccgccg 750
tcgaccgaag acgccagaag ctgccagttc cccgaggaag agcggggcga 800
gcgatcggca gaggagaagg ggcggctggg agacctgtgg gtgtgagcct 850

ggcgcctc cggggccacc gaccgcagcc agcccctccc caggagctcc 900
ccaggccgca ggggctctgc gttctgctct gggccgggcc ctgctcccct 950
ggcagcagaa gtgggtgcag gaaggtggca gtgaccagcg ccctggacca 1000
tgcagttc 1008

<210> 2
<211> 723
<212> DNA
<213> Homo sapiens

<400> 2
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gctgctgtgc gcgctcagcc tgggtcagcg cccaccggg ggtcccgggt 100
gcggccctgg gcgcctcctg cttgggacgg gaacggacgc gcgctgctgc 150
cgggttcaca cgacgcgctg ctgccgcgat taccggggcg aggagtgctg 200
ttccgagtgg gactgcatgt gtgtccagcc tgaattccac tgcggagacc 250
cttgctgcac gacctgccg caccaccctt gtccccagg ccagggggta 300
cagtcccagg ggaaattcag ttttggttc cagtgtatcg actgtgcctc 350
ggggaccttc tccgggggcc acgaaggcca ctgcaaacct tggacagact 400
gcacccagtt cgggtttctc actgtgttcc ctgggaacaa gaccacaac 450
gctgtgtgcg tcccagggc cccgccggca gagccgcttg ggtggctgac 500
cgtcgtcctc ctggccgtgg ccgcctgcgt cctcctcctg acctcgccc 550
agcttggaact gcacatctgg cagctgagga gtcagtgcac gtggccccga 600
gagaccagc tgctgctgga ggtgccgccg tcgaccgaag acgccagaag 650
ctgccagttc cccgaggaag agcggggcga gcgatcggca gaggagaagg 700
ggcggctggg agacctgtgg gtg 723

<210> 3
<211> 241
<212> PRT
<213> Homo sapiens

<400> 3
Met Ala Gln His Gly Ala Met Gly Ala Phe Arg Ala Leu Cys Gly
1 5 10 15
Leu Ala Leu Leu Cys Ala Leu Ser Leu Gly Gln Arg Pro Thr Gly
20 25 30
Gly Pro Gly Cys Gly Pro Gly Arg Leu Leu Leu Gly Thr Gly Thr
35 40 45

Asp	Ala	Arg	Cys	Cys	Arg	Val	His	Thr	Thr	Arg	Cys	Cys	Arg	Asp	50	55	60
Tyr	Pro	Gly	Glu	Glu	Cys	Cys	Ser	Glu	Trp	Asp	Cys	Met	Cys	Val	65	70	75
Gln	Pro	Glu	Phe	His	Cys	Gly	Asp	Pro	Cys	Cys	Thr	Thr	Cys	Arg	80	85	90
His	His	Pro	Cys	Pro	Pro	Gly	Gln	Gly	Val	Gln	Ser	Gln	Gly	Lys	95	100	105
Phe	Ser	Phe	Gly	Phe	Gln	Cys	Ile	Asp	Cys	Ala	Ser	Gly	Thr	Phe	110	115	120
Ser	Gly	Gly	His	Glu	Gly	His	Cys	Lys	Pro	Trp	Thr	Asp	Cys	Thr	125	130	135
Gln	Phe	Gly	Phe	Leu	Thr	Val	Phe	Pro	Gly	Asn	Lys	Thr	His	Asn	140	145	150
Ala	Val	Cys	Val	Pro	Gly	Ser	Pro	Pro	Ala	Glu	Pro	Leu	Gly	Trp	155	160	165
Leu	Thr	Val	Val	Leu	Leu	Ala	Val	Ala	Ala	Cys	Val	Leu	Leu	Leu	170	175	180
Thr	Ser	Ala	Gln	Leu	Gly	Leu	His	Ile	Trp	Gln	Leu	Arg	Ser	Gln	185	190	195
Cys	Met	Trp	Pro	Arg	Glu	Thr	Gln	Leu	Leu	Leu	Glu	Val	Pro	Pro	200	205	210
Ser	Thr	Glu	Asp	Ala	Arg	Ser	Cys	Gln	Phe	Pro	Glu	Glu	Glu	Arg	215	220	225
Gly	Glu	Arg	Ser	Ala	Glu	Glu	Lys	Gly	Arg	Leu	Gly	Asp	Leu	Trp	230	235	240

Val

<210> 4
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4
 ggcacagcac gggcgatgg gcgcgtttcg ggccctgtgc ggccctggcgc 50
 tgctgtgcgc gctcagcctg ggtcagcgcc ccaccggggg tcccgggtgc 100
 ggccctgggc gctcctgtct tgggacggga acggacgcgc gctgctgccg 150
 ggttcacacg acgcgctgct gccgcgatta cccgggagag gagtgctgtt 200
 ccgagtgagg ctgcatgtgt gtccagcctg aattccactg cggagaccct 250

tgctgcacga cctgccggca ccacccttgt cccccaggcc aggggggtaca 300
 gtcccagggg aaattcagtt ttggcttcca gtgtatcgac tgtgcctcgg 350
 ggaccttctc cggggggccac gaaggccact gcaaaccttg gacagactgc 400
 acccagttcg ggtttctcac tgtgttccct ggggaacaag acccacaacg 450
 ctgtgtgcgt cccaggggtcc ccgccggcag agccgcttgg gtgggtgacc 500
 gtcgtcctcc tggccgtggc cgcctgcgtc tcctcctgac ctcggccag 550
 cttggactgc acatctggca gctgaggagt cagtgcattg ggccccgagg 600
 tctgtcacag cctggtgcgg ggaggtggga gcatggctgc ctgctgaccg 650
 tggccccctt gcatagacct agctgctgct ggaggtgccg ccgtcgaccg 700
 aagacgccag aagctgccag ttccccgagg aagagcgggg cgagcgatcg 750
 gcagaggaga aggggaggct gggagacctg tgggtgtgag cctggctgtc 800
 ctccggggcc accgaccgca gccagccctt ccccaggagc tccccaggcc 850
 gcaggggctc tgcgttctgc tctgggccgg gccctgctcc cctggcagca 900
 gaagtgggtg caggaaggtg gcagtgacca gcgccctgga ccatgcagtt 950

c 951

<210> 5
 <211> 28
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Sequence is synthesized.

<400> 5
 ggcacagcac ggggcgatgg gcgcgttt 28

<210> 6
 <211> 19
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Sequence is synthesized.

<400> 6
 cacagcacgg ggcgatgg 19

<210> 7
 <211> 40
 <212> DNA
 <213> Artificial sequence

<220>

<223> Sequence is synthesized.

<400> 7

agcctgggtc agcgcccccac cggggggtccc ggggtgcggcc 40

<210> 8

<211> 17

<212> DNA

<213> Artificial sequence

<220>

<223> Sequence is synthesized.

<400> 8

cgctgaccca ggctgag 17

<210> 9

<211> 40

<212> DNA

<213> Artificial sequence

<220>

<223> Sequence is synthesized.

<400> 9

gaggagtgtc gttccgagtg ggactgcatg tgtgtccagc 40

<210> 10

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> Sequence is synthesized.

<400> 10

gaaggtcccc gaggcacagt cgataca 27

<210> 11

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> Sequence is synthesized.

<400> 11

gctctgcgtt ctgctctg 18

<210> 12

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Sequence is synthesized.

<400> 12

ctggtcactg ccaccttcct gcac 24

<210> 13
<211> 1964
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> 1857, 1875
<223> unknown base

<400> 13
cagctctcat ttctccaaaa atgtgtttga gccacttggga aaatatgcct 50
ttaagccatt caagaactca aggagctcag agatcatcct ggaagctgtg 100
gctcttttgc tcaatagtta tgttgctatt tctttgctcc ttcagttggc 150
taatctttat ttttctccaa ttagagactg ctaaggagcc ctgtatggct 200
aagtttggac cattaccctc aaaatggcaa atggcatcct ctgaacctcc 250
ttgcgtgaat aaggtgtctg actggaagct ggagatactt cagaatggct 300
tatatttaat ttatggccaa gtggctccca atgcaaaacta caatgatgta 350
gctccttttg aggtgctggct gtataaaaac aaagacatga taaaaactct 400
aacaacaaaa tctaaaatcc aaaatgtagg agggacttat gaattgcatg 450
ttggggacac catagacttg atattcaact ctgagcatca ggttctaaaa 500
aataatacat actggggtat cattttacta gcaaatcccc aattcatctc 550
ctagagactt gatttgatct cctcattccc ttcagcacat gtagagggtc 600
cagtgggtgg attggaggga gaagatattc aatttctaga gtttgtctgt 650
ctacaaaaat caacacaaac agaactcctc tgcacgtgaa ttttcatcta 700
tcatgcctat ctgaaagaga ctcaggggaa gagccaaaga cttttggttg 750
gatctgcaga aatacttcat taatccatga taaaacaaat atggatgaca 800
gaggacatgt gcttttcaaa gaatctttat ctaattcttg aattcatgag 850
tggaaaaaatg gagttctatt cccatggaag atttacctgg tatgcaaaaa 900
ggatctgggg cagtagcctg gctttgttct catattcttg ggctgctgta 950
attcattctt ctcatactcc catcttctga gacctccca ataaaaagta 1000
gactgatagg atggccacag atatgcctac cataccctac tttagatatg 1050
gtggtgttag aagataaaga acaatctgag aactattgga atagaggtag 1100
aagtggcata aaatggaatg tacgctatct ggaaatttct cttggtttta 1150

tcttcctcag gatgcagggg gctttaaaaa gccttatcaa aggagtcatt 1200
ccgaaccctc acgtagagct ttgtgagacc ttactgttg tgtgtgtgtc 1250
taaacattgc taattgtaaa gaaagagtaa ccattagtaa tcattagggt 1300
taaccccaga atggtattat cattactgga ttatgtcatg taatgattta 1350
gtatttttag ctagctttcc acagtttgca aagtgccttc gtaaaacagt 1400
tagcaattct atgaagttaa ttgggcaggc atttggggga aaattttagt 1450
gatgagaatg tgatagcata gcatagccaa ctttcctcaa ctcataggac 1500
aagtgactac aagaggcaat gggtagtccc ctgcattgca ctgtctcagc 1550
tttagaattg ttatttctgc tatcgtgtta taagactcta aaacttagcg 1600
aattcacttt tcaggaagca tattcccctt tagcccaagg tgagcagagt 1650
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attccccttt tcactttgca gggcccatct tagtcaaagtg tgctaacttc 1800
taaaataata aatagcacta attcaaaatt tttggaatct taaattagct 1850
acttgcnngt tgcttggtga aaggnatata atgattacat tgtaaacaaa 1900
tttaaaatat ttatggatat ttgtgaaaag ctgcattatg ttaaataata 1950
ttacatgtaa agct 1964

<210> 14
<211> 177
<212> PRT
<213> Homo sapiens

<400> 14
Met Cys Leu Ser His Leu Glu Asn Met Pro Leu Ser His Ser Arg
1 5 10 15
Thr Gln Gly Ala Gln Arg Ser Ser Trp Lys Leu Trp Leu Phe Cys
20 25 30
Ser Ile Val Met Leu Leu Phe Leu Cys Ser Phe Ser Trp Leu Ile
35 40 45
Phe Ile Phe Leu Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala
50 55 60
Lys Phe Gly Pro Leu Pro Ser Lys Trp Gln Met Ala Ser Ser Glu
65 70 75
Pro Pro Cys Val Asn Lys Val Ser Asp Trp Lys Leu Glu Ile Leu
80 85 90

Gln	Asn	Gly	Leu	Tyr	Leu	Ile	Tyr	Gly	Gln	Val	Ala	Pro	Asn	Ala	
				95					100					105	
Asn	Tyr	Asn	Asp	Val	Ala	Pro	Phe	Glu	Val	Arg	Leu	Tyr	Lys	Asn	
				110					115					120	
Lys	Asp	Met	Ile	Gln	Thr	Leu	Thr	Asn	Lys	Ser	Lys	Ile	Gln	Asn	
				125					130					135	
Val	Gly	Gly	Thr	Tyr	Glu	Leu	His	Val	Gly	Asp	Thr	Ile	Asp	Leu	
				140					145					150	
Ile	Phe	Asn	Ser	Glu	His	Gln	Val	Leu	Lys	Asn	Asn	Thr	Tyr	Trp	
				155					160					165	
Gly	Ile	Ile	Leu	Leu	Ala	Asn	Pro	Gln	Phe	Ile	Ser				
				170					175						

<210> 15
 <211> 42
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Sequence is synthesized.

<400> 15
 tgtaaaacga cggccagttt ctctcagaga aacaagcaaa ac 42

<210> 16
 <211> 43
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Sequence is synthesized.

<400> 16
 caggaaacag ctatgaccga agtggaccaa aggtctatcg cta 43

<210> 17
 <211> 20
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Sequence is synthesized.

<400> 17
 ccactgaaac cttggacaga 20

<210> 18
 <211> 27
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Sequence is synthesized.

<400> 18
cccagttcgg gtttctcact gtgttcc 27

<210> 19
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Sequence is synthesized.

<400> 19
acagcgttgt gggctctgtt c 21

<210> 20
<211> 38
<212> DNA
<213> Artificial sequence

<220>
<223> Sequence is synthesized.

<400> 20
gacgacaagc atatgttaga gactgctaag gagccctg 38

<210> 21
<211> 34
<212> DNA
<213> Artificial sequence

<220>
<223> Sequence is synthesized.

<400> 21
tagcagccgg atcctaggag atgaattggg gatt 34

<210> 22
<211> 24
<212> PRT
<213> Artificial sequence

<220>
<223> Sequence is synthesized.

<400> 22
Met Gly His His His His His His His His His Ser Ser Gly
1 5 10 15

His Ile Asp Asp Asp Asp Lys His Met
20